Enhancing Learning and Teaching Through the Use of Digital Technology: A Digital Learning and Teaching Strategy for Scotland

Equality Impact Assessment – Result

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Scottish Government
Riaghaltas na h-Alba
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EQUALITY IMPACT ASSESSMENT - RESULTS

Title of Policy	Enhancing Learning and Teaching Through the Use of Digital Technology: A Digital Learning and Teaching Strategy for Scotland
Summary of aims and desired outcomes of Policy	The aim of the strategy is to: • Create the conditions to allow digital technology to enrich learning and teaching across all areas of Curriculum for Excellence. • It will do this by focussing national and local level action around 4 key and interrelated objectives. 1) Develop the skills and confidence of educators in the appropriate and effective use of digital technology to support learning and teaching. 2) Improve access to digital technology for all learners. 3) Ensure that digital technology is a central consideration in all areas of curriculum and assessment delivery. 4) Empower leaders of change to drive innovation

	and investment in digital technology for learning and teaching.
Directorate: Division: team	Learning Directorate: People & Infrastructure Division: Digital Learning and Teaching Team

Executive Summary

The Scottish Government is committed to developing a national strategy that will promote the use of digital technology across all areas of Curriculum for Excellence. It will do this by setting out a number of actions and expectations designed to help deliver four key objectives:

- Develop the skills and confidence of educators in the appropriate and effective use of digital technology to support learning and teaching.
- Improve access to digital technology for all learners.
- Ensure that digital technology is a central consideration in all curriculum and assessment delivery.
- Empower leaders of change to drive innovation and investment in digital technology for learning and teaching.

The policy will also contribute to the following Scottish Government National Outcomes:

- Our children have the best start in life and are ready to succeed;
- Our young people are successful learners, confident individuals, effective contributors and responsible citizens;
- We are better educated, more skilled and more successful, renowned for our research and innovation;
- We have tackled the significant inequalities in Scottish society;
- We live in well-designed, sustainable places where we are able to access the services we need; and
- We realise our economic potential with more and better employment opportunities for our people.

Following a public consultation on the development of a national strategy, an equality impact assessment (EQIA) was carried out and this document provides a summary of the findings of that assessment.

Consideration was initially given to how the new strategy would impact on all of the protected characteristics outlined in the Equality Act 2010. After an initial scoping exercise, it was deemed that the strategy would not

impact on all protected characteristics but that it could potentially have an impact on individuals with the following protected characteristics:

- Age
- Disability
- Sex
- Pregnancy and Maternity
- Gender Reassignment
- Sexual Orientation
- Race

The assessment therefore focused on how the strategy will impact on individuals with the above characteristics.

In addition to the protected characteristics outlined above, consideration was given to individuals from disadvantaged socio-economic backgrounds. Socio-economic status is not a protected characteristic under the Equality Act 2010 however, the assessment process highlighted that the strategy could potentially have a negative impact on learners from the most disadvantaged socio-economic backgrounds. It was therefore prudent to record these considerations as part of the assessment process.

In assessing the impact of the strategy on the relevant protected characteristics a broad and comprehensive evidence base was collated. This included responses from a public consultation, responses from two further consultations targeted specifically at children and young people, a number of national statistics gathered by the Scottish Government or similar national bodies and various other relevant studies, reports and surveys.

The evidence available indicated that the proposed strategy will have a positive impact on all of the relevant protected characteristics listed above. The impact assessment process did however highlight that the strategy could unintentionally have a negative impact on learners who are more socio-economically disadvantaged than their peers. In recognition of this, the strategy will be developed to ensure any potential negative impacts are mitigated as far as possible.

Background

Following a positive response to a public consultation, the Scottish Government is committed to developing a national strategy that will promote and support the use of digital technology to enhance education. The ultimate beneficiaries of the strategy will be children and young people aged 3-18 in education in Scotland. The strategy will help to achieve the Scottish Government's vision that all of Scotland's educators, learners and parents take full advantage of opportunities offered by digital technology in order to raise attainment, ambition and opportunities for all.

The strategy will set out a comprehensive approach to enhancing education through the use of digital technology. This approach will be built upon four objectives:

- Develop the skills and confidence of educators in the appropriate and effective use of digital technology to support learning and teaching.
- Improve access to digital technology for all learners.
- Ensure that digital technology is a central consideration in all areas of curriculum and assessment delivery.
- Empower leaders of change to drive innovation and investment in digital technology for learning and teaching.

As the strategy will impact on individuals such as learners, parents, teachers and other educators, some of whom will possess protected characteristics, it was deemed that an EQIA should be completed.

The Scope of the EQIA

An initial scoping exercise concluded that the strategy could potentially have an impact on individuals with the following protected characteristics outlined in the Equality Act 2010[1]:

- Age
- Disability
- Sex
- Pregnancy and Maternity
- Gender Reassignment
- Sexual Orientation
- Race

In line with the public sector equality duty the EQIA assessed how the strategy might eliminate discrimination, harassment and victimisation,

[1] Equality Act 2010 - http://www.legislation.gov.uk/ukpga/2010/15/part/2/chapter/1

advance equality of opportunity and foster good relations under each of the seven protected characteristics identified above.

The scoping exercise also highlighted that the strategy could have an impact on individuals from more disadvantaged socio-economic backgrounds. Although socio-economic background is not a protected characteristic under the Equality Act 2010, it was deemed prudent to assess the impact the strategy would have on individuals experiencing socio-economic disadvantage.

Following the identification of the protected characteristics relevant to the policy, a broad evidence base was collated to allow the Scottish Government to properly assess the strategy's impact on each relevant characteristic. This evidence base included responses from a public consultation[2], responses from two further consultations targeted solely at children and young people[3], a number of national statistics gathered by the Scottish Government or other national bodies and various other relevant studies, reports and surveys that are referenced throughout this report.

To ensure that the EQIA was comprehensive, colleagues from a number of policy areas were involved in the impact assessment process. These areas included Scottish Government Education Analytical Services, Scottish Government Equalities Unit, Scottish Government Learning Directorate, the Embedding Digital Learning and Teaching Programme at Education Scotland and the views of external stakeholders gathered as part of the public consultation process and a number of face-to-face consultation events[4].

Key Findings

The key findings of the impact assessment process were as follows.

Age

Evidence gathered under this characteristic focused on the potential for the strategy to impact negatively on educators over 40. There is evidence to show that younger teachers have a more positive attitude towards digital

[2] Scottish Government (2016) *Consultation on the Development of a Digital Learning and Teaching Strategy for Scotland - Analysis of Responses* - http://www.gov.scot/Publications/2016/03/9409
[3] Scottish Government (2016) *Development of a Digital Learning and Teaching Strategy for Scotland - The Views of Young People* http://www.gov.scot/Publications/2016/03/8825 and Scottish Government (2016) *Development of a Digital Learning and Teaching Strategy for Scotland - The Views of Children Aged 8-11* http://www.gov.scot/Publications/2016/03/1091
[4] Scottish Government (2016) Consultation on the Development of a Digital Learning and Teaching Strategy for Scotland - Analysis of Evidence Gathered From Face-to-Face Consultation Events http://www.gov.scot/Publications/2016/03/7512

technology than older teachers.[5] In addition, we know that digital technology has only taken up a pervasive position in our society in approximately the last 25 years. It is therefore possible to conclude that teachers and early years practitioners over the age of 40[6] would not have had the same exposure to digital technology as younger educators during their broad general and professional educations. This could potentially lead to older educators being at a disadvantage when asked to incorporate digital technology into their lessons.

Despite this evidence it is predicted that the impact of the strategy on older educators will be minor. Evidence has shown that previous exposure to digital technology has a bigger influence on a teacher's attitude towards digital technology than their age.[7] The new strategy will help to provide educators with training opportunities focussing on how digital technology can be used to enhance education and therefore eliminate any disadvantage a teacher may experience because of their age.

The process also highlighted how the strategy will have a positive impact on school aged learners who will seek employment in the near future. Currently individuals aged 16-24 are the most likely of any age group in Scotland to be unemployed[8]. We also know that digital skills of the kind the new strategy will help learners develop can be central to finding work[9] in an economy that is becoming increasingly more digitised.[10] Therefore, it was deemed that the strategy will have a positive impact on the employability of school aged young people; especially those leaving education and seeking work.

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[5] Elsaadani (2013) *Exploring the Relationship Between Teaching Staff Age and Their Attitude Towards Information and Communications Technology (ICT)* - http://files.eric.ed.gov/fulltext/ED539906.pdf and Cavas et al (2009) A Study of Science Teachers' Attitudes Toward Information and Communication Technologies in Education - http://files.eric.ed.gov/fulltext/ED505935.pdf

[6] Scottish Teacher Census 2015 records the number of teachers aged 40 or above in schools and early years settings as 29,737 - http://www.gov.scot/Topics/Statistics/Browse/School-Education/teachcenssuppdata/teachcensus2015

[7] Cavas et al (2009) A Study of Science Teachers' Attitudes Toward Information and Communication Technologies in Education - http://files.eric.ed.gov/fulltext/ED505935.pdf

[8] Local Authority web tables from the Local Area Labour Markets in Scotland: Statistics from the Annual Popuation Survey 2014 publication - http://www.gov.scot/Topics/Statistics/Browse/Labour-Market/Local-Authority-Tables

[9] JISC (2015) *Technology for Employability* - http://repository.jisc.ac.uk/6252/4/Technology_for_employability_-_quick_read_report.PDF

[10] House of Lords (2015) *Make or Break: the UKs Digital Future* - http://www.parliament.uk/documents/lords-committees/digital-skills/Summary-and-summary-of-conclusions-and-recommendations.pdf

Disability

Evidence tells us that in general, learners with a disability reach lower attainment levels than their non-disabled peers[11]. Disabled people also report that a lack of appropriate skills prevent a higher percentage of them entering the job market compared to their non-disabled peers.[12] However, evidence also suggests that the use of digital technology in education can help learners with a disability raise their attainment levels.[13] It was therefore deemed that the new strategy will have a positive impact on disabled individuals.

Sex

Evidence collected under this characteristic tells us that females have a lower exposure to digital technology than males[14], a disproportionately low level of females study computing or similar IT related subjects[15] and a disproportionately low level of females work in the digital industry.[16] The new strategy will allow more female learners to experience digital technology from an early age. Female learners then have the opportunity to start building skills and experiences that will give them the same opportunities that their male counterparts currently take up in the digital sector.

[11] Scottish Government (2015) Summary Statistics for Attainment, Leaver Destinations and Healthy Living, No. 5 2015 Edition - http://www.gov.scot/Resource/0047/00479422.pdf
[12] Scottish Government (2013) *Equality Outcomes: Disability Evidence Review - http://www.gov.scot/Resource/0042/00420991.pdf*
[13] Scottish Government (2015) *Literature Review on the Impact of Digital Technology on Learning and Teaching – Chapter 4 – Digital Learning, Reducing Inequalities and Promoting Inclusion* - http://www.gov.scot/Resource/0048/00489224.pdf
[14] OECD (2015) *Students, Computers and Learning: Making the Connection – Chapter 5 - Inequalities in Digital Proficiency: Bridging the Divide* - http://www.oecd-ilibrary.org/docserver/download/9815021e.pdf?expires=1459852759&id=id&accname=guest&checksum=CB5EDA3E31A2E4BC845E9330C6D36451
[15] UK Digital Skills Taskforce (2014) *Digital Skills for Tomorrow's World* http://www.ukdigitalskills.com/wp-content/uploads/2014/07/Binder-9-reduced.pdf
[16] UK Commission for Employment and Skills (2015) Sector Insights: Skills and Performance Challenges in the Digital and Creative Sector - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/433755/Skills_challenges_in_the_digital_and_creative_sector.pdf

Pregnancy and maternity

Assessment under this characteristic focussed on school aged learners who are not able to attend school regularly because they fall pregnant. Evidence suggests that there is inadequate educational support available to these learners.[17] The new strategy will have a positive impact as it allows for the possibility of a teenage mother or expectant mother continuing their learning remotely using a digital device. This option would not be available if a school had not utilised digital technology as part of their learning and teaching.

Gender reassignment and sexual orientation

It should be noted that gender reassignment and sexual orientation are separate protected characteristics and individuals possessing these characteristics have very different needs and considerations. However, much of the evidence that has been gathered in relation to the needs of lesbian, gay, bisexual and/or transgender (LGBT) learners has come under the heading of LGBT and is not necessarily specific to gender reassignment or sexual orientation. Therefore, these protected characteristics are discussed together.

Evidence tells us that a disproportionately high number of LGBT individuals directly experience bullying or experience homophobia, biphobia or transphobia during education[18]. A significant number of LGBT individuals leave education as a result of these experiences and they subsequently report this has a negative impact on their employability.[19] LGBT Youth Scotland has recommended that all young people should be educated in LGBT issues in an effort to promote inclusion of LGBT learners in education and beyond. The increased use of digital technology in education has the potential to have a positive impact as it will open up a number of relevant online educational resources that are not typically available in schools. An educator could therefore utilise these online resources to educate learners on LGBT issues.

[17] Barnardo's (2010) *Not the End of the Story: Supporting Teenage Mothers Back into Education* - http://www.barnardos.org.uk/not_the_end_of_the_story_-_march_2010_pdf.pdf

[18] LGBT Youth Scotland (2012) *Life in Scotland for LGBT Young People: Education Report* https://www.lgbtyouth.org.uk/files/documents/Life_in_Scotland_for_LGBT_Young_People_-_Education_Report_NEW.pdf

[19] LGBT Youth Scotland (2012) *Life in Scotland for LGBT Young People: Education Report* https://www.lgbtyouth.org.uk/files/documents/Life_in_Scotland_for_LGBT_Young_People_-_Education_Report_NEW.pdf

Race

Evidence collected under this characteristic identified that digital technology can help to promote inclusion for learners from minority backgrounds; specifically learners who are gypsy travellers and learners who are learning English as a second language. There is evidence to show that if a learner from a gypsy traveller background cannot attend school on a regular basis, digital technology can offer them the chance to continue with their education from home[2021]. The strategy will facilitate this positive impact. In addition, evidence has shown that individuals learning a language can experience a greater benefit using digital technology rather than traditional educational methods.[22] As the strategy will bring about the introduction of more digital technology in schools, those learning English as a second language may experience a benefit.

Socio-economic

Evidence tells us that learners from the most disadvantaged backgrounds reach lower standards of attainment than learners from the least disadvantaged backgrounds.[23] However, there is also evidence to show that digital technology can help to close that attainment gap and raise the attainment of learners from the most disadvantaged backgrounds.[24] By promoting the use of digital technology in education, the strategy has the potential to help raise the attainment levels of socio-economically disadvantaged learners.

The assessment process also identified that those who suffer from socio-economic disadvantage experience a "digital divide" from those less disadvantaged.[25] This is to say that they do not have the same access to

[20] UK Government Department for Education and Skills (2006) *School Support Distance Learning: A good practice guide based on using ICT to support work with communities which have a travelling tradition* - https://www.sgsts.org.uk/SupportForVulnerablePupils/EMTAS/Shared%20Documents/GRT%20-%20School%20Supported%20Distance%20Learning.pdf

[21] STEP(2016) *Mobile Children, Young People and Technology Project* - http://www.step.education.ed.ac.uk/wp-content/uploads/2016/06/YPTech-Report-.pdf

[22] Grgurovic et al (2013) *A meta-analysis of effectiveness studies on computer technology-supported language learning* - *http://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=1040&context=engl_pubs&sei-redir=1&referer=http%3A%2F%2Fscholar.google.co.uk%2Fscholar%3Fhl%3Den%26as_sdt%3D0%2C5%26as_ylo%3D2012%26as_vis%3D1%26q%3DImpact%2Bof%2Bcomputer%2Bassisted%2Blanguage%2Blearning%20-%20search=%22Impact%20computer%20assisted%20language%20learning%22*

[23] Scottish Government (2016) *National Improvement Framework for Scottish Education: 2015 Interim Framework Report* - *http://www.gov.scot/Resource/0049/00491743.pdf*

[24] Scottish Government (2015) *Literature Review on the Impact of Digital Technology on Learning and Teaching* - http://www.gov.scot/Resource/0048/00489224.pdf

[25] The Royal Society of Edinburgh (2013) *Spreading the Benefits of Digital Participation* - http://www.rse.org.uk/wp-content/uploads/2016/09/Digital-Report-High-Res-EQ5.pdf

digital technology which can mean they do not own digital technology or they do not have access to the internet at home. If the new strategy places an emphasis on using digital technology in education, those who do not have access to technology at home could be negatively affected.

Despite this evidence the potential negative impact is expected to be small. This is because we know that the "digital divide" is closing rapidly.[26] In addition, the strategy will not look to completely replace traditional learning and teaching methods, only enhance them when appropriate. Therefore a learner would still have the choice to complete work without using digital technology especially if they were in a situation where it wasn't available to them.

Recommendations and Conclusion

The assessment process has found that the strategy will have a positive impact on all of the relevant protected characteristics as defined by the Equality Act 2010. It will help to enhance equality of opportunity for those who possess protected characteristics. For example, learners from gypsy traveller backgrounds will have a greater opportunity to keep up with school work if they can utilise digital technology to undertake distance learning. The strategy will also help towards promoting good relations between those who possess protected characteristics and those that do not. For example, it is likely that LGBT learners will experience less harassment if access to digital technology allows their peers to be educated on the subjects of sexual orientation and gender reassignment. Crucially, it was also found that the strategy will not unlawfully discriminate against individuals who possess any protected characteristics.

There was however some evidence to show that the strategy may impact negatively on the most socio-economically disadvantaged learners. Although socio-economic circumstance is not a protected characteristic, any potential negative impact arising from the strategy is worth considering. It is recommended that the final strategy should place an expectation on local authorities and education establishments to ensure that all of their learners experience the same access to digital technology during the time they spend in the school or early learning setting. This will ensure that learners from more deprived socio-economic disadvantages are not discriminated against.

[26] OECD (2015) *Students, Computers and Learning: Making the Connection - Chapter 5 - Inequalities in Digital Proficiency: Bridging the Divide* - http://www.oecd-ilibrary.org/docserver/download/9815021e.pdf?expires=1459852759&id=id&accname=guest&checksum=CB5EDA3E31A2E4BC845E9330C6D36451

It is not proposed that the strategy will place any expectation on local authorities or education establishments in respect of digital access outside of the classroom. This is because the strategy will be clearly defined as an education strategy and will not reach further into socio-economic policy. Instead, Scottish Government initiatives such as the Digital Participation Strategy[27] will help to ensure that learners from more deprived socio-economic backgrounds can access digital technology outside a formal education setting.

It is also recommended that the impact of the strategy on those with protected characteristics should be reviewed every 2 years. This will be carried out by the Scottish Government's Digital Learning and Teaching Team and involve a fresh gathering of evidence around all of the protected characteristics outlined in the Equality Act 2010 and a targeted consultation if deemed necessary.

[27] Scottish Government (2014) Digital Participation: *A National Framework for Local Action* http://www.gov.scot/Publications/2014/04/6821

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